

# UGI Columbia Gas Plant

**EPA Region 3**

Pennsylvania

Lancaster County

Columbia

**EPA ID#** PAD980539126

**16th** Congressional District

**Last Update:** August  
2002

**Other Names:** None

## Current Site Status

The U.S. Environmental Protection Agency is overseeing the cleanup at the U.G.I. Columbia Gas Plant site. An innovative method for the extraction of coal tar and sludge in the former gas holders was completed in October 1997 under an order from the Pennsylvania Department of Environmental Protection (PADEP). Approximately 3,350 gallons of tar was removed from the two holders and taken for off-site thermal treatment and disposal. Following the tar removal, the holders were injected with over 760 cubic yards of a grout and cement mixture to stabilize and solidify them. In late December 1997 removal of contaminated sediment from the Susquehanna River was started. Approximately 700 tons of contaminated sediments were removed from the river and shipped for off-site thermal treatment and disposal. A sheet pile wall was installed along the river bank in the area adjacent to sediments. The area was regraded, covered with a geosynthetic cloth, rock, and stone. This action was completed in early 1998.

# Site Description

UGI Columbia Gas Plant is a 1 ½ -acre site located in a light industrial/residential area 400 feet northeast of the Susquehanna River in southern Pennsylvania. From 1851 to 1949, Columbia Gas used the site for gas manufacturing. In 1932, ownership of the property was transferred to Pennsylvania Power and Light (PP&L) and subsequently transferred to Lancaster County Gas Company in 1949. Lancaster County Gas merged with UGI Corporation which owned the site until 1979. The property was used as a boat dealership from 1979 until 1994 when it was repurchased by PP&L. During the years of active gas manufacturing operations at the site, overflows from an on-site tar separator were directed to an open ditch that led to the Susquehanna River. Records show that local fishermen complained to the gas plant that their boats were being covered with tar. PADEP conducted preliminary investigations at the site in August 1984. In 1985, PP&L and UGI Corporation conducted further investigations to determine the nature and extent of contamination at the site. Tar was found in test pits dug in the gas and relief holders and in several soil borings on the site. Soil, sediment, sludge, tar, and groundwater samples collected during this investigation also revealed volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), heavy metals, and cyanide contamination. An area of Susquehanna River sediments directly downstream of the site was contaminated with tar-related contaminants such as PAHs. In 1987, it was determined that approximately 800 cubic yards of sediment in the Susquehanna River were contaminated with tar from the site. In January 1991, the Environmental Protection Agency (EPA) conducted expanded investigations of the UGI Columbia Gas Plant. EPA collected groundwater, soil, and surface water samples from the Susquehanna River and confirmed previously reported contamination of VOCs, PAHs, and cyanide. Within 15 miles downstream of the site, approximately 90 people use the Susquehanna River as a source of drinking water. Approximately 1,000 people use groundwater wells within four miles of the site for drinking water.

## Site Responsibility


Cleanup of this site is the responsibility of Federal and State governments, and parties potentially responsible for site contamination.

## NPL Listing History

Our country's most serious, uncontrolled, or abandoned hazardous waste sites can be cleaned using federal money. To be eligible for federal cleanup money, a site must be put on the National Priorities List. This site was proposed to the list on June 23, 1993 and formally added to the list May 31, 1994.

## Threats and Contaminants

The main waste streams generated during the historic production of gas from coal at the site consist of coal tar and spent gas purifying materials. The primary sources of contamination at the site are coal tar and sludge in the gas holder and the relief holder, coal tar contaminated sediments in the Susquehanna River and coal tar in the sub-surface soil and bedrock. Groundwater flowing through the contaminated subsurface soil and bedrock has become contaminated with VOCs. Hazardous substances associated with the coal tar and purifier wastes include VOCs, PAHs, heavy metals, and cyanide. People or animals who touch or swallow contaminated materials may be at risk.

Contaminant descriptions and associated risk factors are available on the Agency for Toxic Substance and Disease Registry, an arm of the CDC, web site at <http://www.atsdr.cdc.gov/hazdat.html> 

## Cleanup Progress

The site is being addressed in a single long-term remedial phase and two interim actions to address the former gas holders and the sediments in the Susquehanna River. On July 17, 1995, the Pennsylvania Department of Environmental Protection (PADEP) selected an interim action for the former gas holders on the Site.

On March 27, 1997 a report on the sediment contamination in the Susquehanna River was finalized. The final Remedial Investigation Report, on the nature and extent of bedrock, soil and groundwater contamination at the site was approved by the EPA on April 8, 1998. A Risk Assessment Report, to determine the threat posed by contamination remaining on the site after the interim actions, was also finalized and approved by EPA on June 1, 1998. Under a Consent Order and Agreement with the PADEP, Pennsylvania Power and Light

(PP&L) and UGI Corporation submitted a Feasibility Study which determined options for addressing the remaining contamination at the Site. The Feasibility Study, as modified by a March 22, 2002 addendum, was approved by PADEP on May 7, 2002. This Feasibility Study calls for a waiver of ground water remediation due to technical impracticability. A document justifying a technical impracticability waiver was prepared by PP&L and is under review by EPA.

PADEP signed a Consent Order and Agreement with the PP&L on April 4, 1994. Under the Order PP&L conducted remedial actions on the former gas holder and the sediment in the Susquehanna River and the developed the Remedial Investigation and Feasibility Study for the Site. EPA has supported the PADEP to ensure the cleanups complied with federal laws and regulations. The removal of the coal tar-contaminated materials from the holders and the river sediments make the UGI Columbia Gas Plant site safer while investigations are being completed.

## **Contacts**

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PADEP has established a site repository at the Columbia Public Library in Columbia, PA

PADEP South Central Regional Office located at 909 Elmerton Avenue, Harrisburg, PA 17110- 8200.

Detailed public files (Administrative Record) on EPA's actions and decisions for this site can be examined at the following location:

U.S. EPA Region III  
6th Floor Docket Room  
1650 Arch Street  
Philadelphia, PA 19103-2029  
215-814-3157

Please call for an appointment.